

Claim 1 and submits that amended Claim 1 and new Claim 3 are patentable over the prior art cited by the Examiner.

Claim 1 recites a reflection liquid crystal display that comprises, among other elements, a liquid crystal layer, first and second alignment layers on first and second transparent electrodes, a reflecting polarizing film, a phase plate, and a polarizing plate. The $\Delta n d$ value of the phase plate is in the range of 1000 to 2000 nm and the $\Delta n d$ of the liquid crystal layer is in the range of 800 to 1800 nm. Different angles exist between the axes of the individual plates. The absorption axis of the polarizing plate and the delay axis of the phase plate differ by -40° to -60° as viewed in the counterclockwise direction from the incident light side, the delay axis of the phase plate and the alignment direction of the second alignment layer differ by -65° to -85° as viewed in the counterclockwise direction from the incident light side, and the absorption axis of the reflecting polarizing film and the alignment direction of the alignment layer of the first transparent substrate differ by -305° to -325° as viewed in the clockwise direction from the incident light side. One advantage of the arrangement of amended Claim 1 is that the structure, the $\Delta n d$ values and the angles between the layers improve the brightness and red/green color purity of the liquid crystal display.

Yamaguchi does not anticipate or suggest all of the angle differences recited in amended Claim 1. For example, Yamaguchi does not anticipate or suggest the angle difference between the absorption axis of the reflecting polarizing film and the alignment direction of the alignment layer of the first transparent substrate. Nor does Yamaguchi anticipate or suggest specifically that this angle is -305° to -325° .

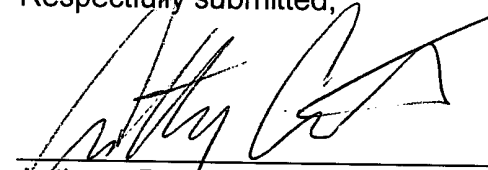
For at least these reasons, Yamaguchi does not anticipate or suggest the arrangement of amended Claim 1. Thus, amended Claim 1 is patentable over the prior art cited by the Examiner.

New Claim 3 recites the angular ranges with more particularity. Thus, for similar reasons, Yamaguchi does not anticipate or suggest the arrangement of new Claim 3. Thus, new Claim 3 is patentable over the prior art cited by the Examiner.

Conclusion

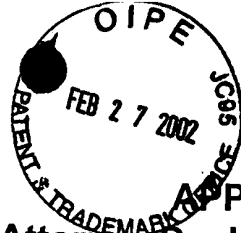
In view of the amendments and arguments above, Applicant respectfully submits that all of the pending claims are in condition for allowance and seeks an early allowance thereof. If for any reason the Examiner is unable to allow the application in the next Office Action and believes that a telephone interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned attorneys.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Anthony P. Curtis', is written over a horizontal line.

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PENDIX A
Attorney Docket No. 9281-3411-1
Serial No. 09/395,666

Reflection Liquid Crystal Display Capable of Displaying Pictures
Improved Color Purity
Takahito Mafune

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Please amend Claim 1 as follows:

1. (Three times Amended) A reflection liquid crystal display comprising:
 - a first transparent substrate;
 - a second transparent substrate disposed opposite to the first transparent substrate;
 - a liquid crystal layer sandwiched between the first and the second transparent substrates;
 - a first transparent electrode layer formed on an inner surface of the first transparent substrate;
 - a first alignment layer formed on the first transparent electrode layer;
 - a reflecting polarizing film including a laminated combination of a transparent scattering layer composed of a polyester resin and a black layer of an acrylic resin as a light absorbing layer, the reflecting polarizing film being disposed below on an outer surface of the first transparent substrate and having a surface of the black coating arranged on an outer side of the laminated combination with the black layer formed as an outermost layer of the reflecting polarizing film;
 - a second transparent electrode layer formed on an inner surface of the second transparent substrate;
 - a second alignment layer formed on the second transparent electrode layer;
 - a phase plate placed on an outer surface of the second transparent substrate; and
 - a polarizing plate ~~placed on the second transparent substrate~~ disposed on the phase plate,

wherein the liquid crystal layer has a helical structure twisted through an angle in the range of 240° to 260° in a direction of a thickness of the liquid crystal layer,

a value $\Delta n_1 d_1$ which is a product of Δn_1 and d_1 , where Δn_1 is an index anisotropy of the phase plate and d_1 is a thickness of the phase plate, is in the range of 1000 to 2000 nm,

a value $\Delta n d$ which is a product of Δn and d , where Δn is an index anisotropy of the liquid crystal and d is a thickness of the liquid crystal layer, is in the range of 800 to 1800 nm,

an absorption axis of the polarizing plate differs from a delay axis of the phase plate by an angle in a range of -40° to -60° in a counterclockwise direction as viewed from an incident light side, the delay axis of the phase plate differs from an alignment direction of the second alignment layer on the second transparent substrate by an angle in a range of -65° to -85° in the counterclockwise direction as viewed in from the incident light side, and an absorption axis of the reflecting polarizing film in the transparent scattering layer differs from an alignment direction of the alignment layer of the first transparent substrate at by angle in a range of -305° to -325° in a clockwise direction as viewed from the incident light side.